

## Reciprocity in Chinese Language and Culture

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**Abstract:** Reciprocal constructions, which involve a grammatical pattern where each participant occupies both the role of agent and patient, have a seemingly simple sentence structure but actually denote complex semantic properties. Thus languages have come up with a great diversity of solutions to encode reciprocity within a single clausal structure. Recent typological work has focused this diversity from different aspects, however few work investigated Mandarin reciprocal constructions, which bears an important implicatures on the relationship between language form and function. This study presents a landscape of mandarin reciprocals from a typological approach and investigates how (1) reciprocity is encoded in language system, and (2) Confucius philosophical factors influence reciprocal strategies in Chinese. It is claimed that reciprocity in Chinese is represented in almost all grammatical levels, much richer than that in other languages. Two factors, language inherent nature and Confucius philosophical, function together in the representation of Chinese reciprocal constructions.

**Keywords:** Reciprocity; Mandarin Chinese; Reciprocal Markers; Confucius Philosophy

### 1. INTRODUCTION

As a crucial component of social interaction, the concept of reciprocity has been extensively examined across various disciplines such as psychology, sociology, economics, and philosophy for centuries. In the field of linguistics, reciprocal constructions denoting a mutual relationship between two or more participants engaged in the same action, are considered to be the most intricate type of event expression that can be conveyed through regular grammatical means in most languages (Evans,

2008). Compared to the intricacies of the lexicon and its network of semantic features, syntax being always principle-driven is rather simple. Therefore common syntactic operations such as c-command, locality, binding theory seems to be facing great challenges in reciprocal constructions. Studies have begun with various approaches. The typology of reciprocal markers provides a rich source of data to be investigated. Upon these data, related researches on syntactic derivation have come to the forefront (Bruening, 2006; Siloni, 2012), along with semantic interpretation of reciprocal meaning (Dalrymple, 1998; Fiengo & Lasnik, 1973; Heim et al., 1991b; Higginbotham, 1980; Langendoen, 1978). Previous researches help us better understand the different solutions taken by languages. However, only a few studies focus on Chinese reciprocal constructions (Kobayashi & Filipe, 2021; Liu, 2000; Liu, 2003; Lv, 1988; Ping, 1996; Tao, 1987), and they mostly narrow down topic on specific linguistic issues or emphasize the description of structural characteristics. With the exception of (Nedjalkov, 2007a), which focuses more on the detailed description of mandarin lexical reciprocals, other typological research to mandarin reciprocal constructions is even rare. Upon the previous studies, this article does not focus on any single linguistic issue at depth, but rather provides a landscape of mandarin reciprocal constructions (section 3) and the underlying cultural and philosophical reasons (section 4) for the exceptional richness of reciprocal strategies in Chinese. We argue that Chinese reciprocal constructions provide as consolidate evidences that language and culture interact dynamically and reciprocally. It bears important implicature on the interaction between language forms and functions.

## 2. AN OVERVIEW

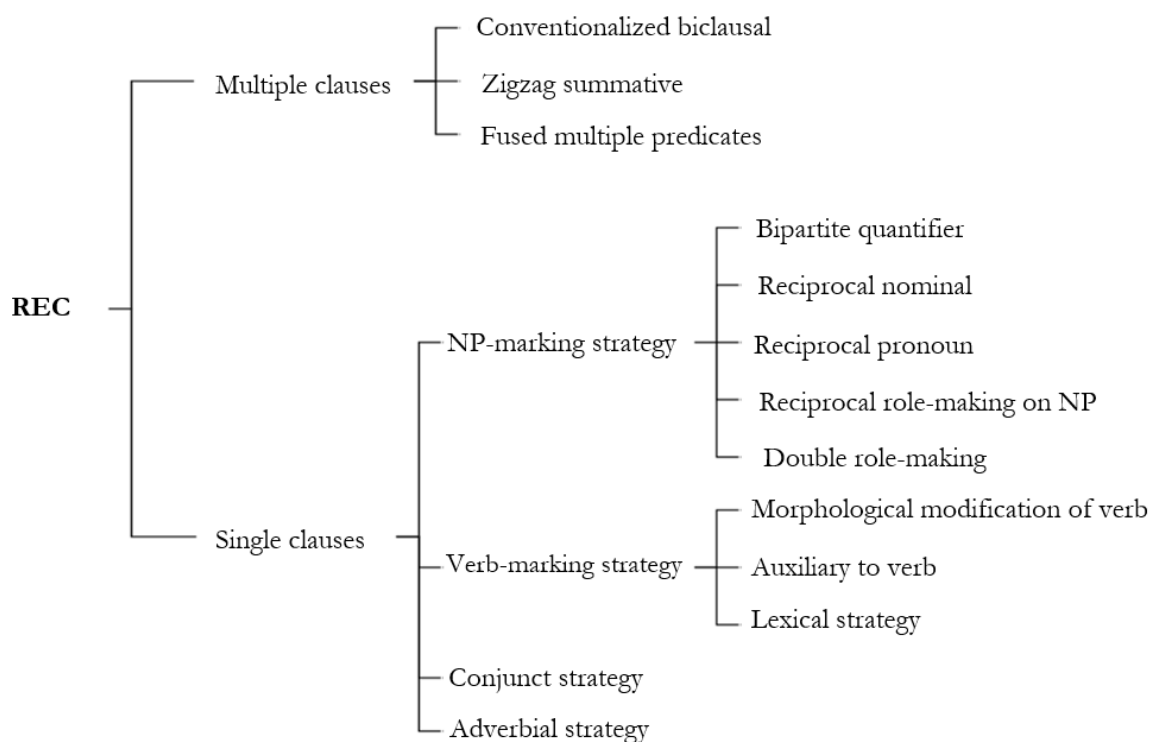
Reciprocal constructions are known to exhibit syntactic complexity and semantic ambiguity. The mapping of different mutual relationships to construction types can vary across languages, raising the question of what core features can be identified across languages. (Haspelmath, 2007) proposes 26 lines of grammatical similarities based on cross-linguistic data, and statistical analyses have shown that languages share common conceptual cores for expressing reciprocal meanings (Majid, 2011). Five core features of reciprocal constructions have been identified:

- i. Plural marking: It is required that at least two participants or arguments ( $|A| \geq 2$ ) are involved in a reciprocal situation.

- ii. Double theta roles: All the participants in a reciprocal construction are assigned two theta roles, Agent on one hand and simultaneously Patient on the other hand.
- iii. Symmetry: Reciprocity involves a sense of symmetry between the entities involved in the action, with both entities performing the action towards each other.
- iv. Mismatch of syntax and semantics: It occurs when the reciprocal construction implies reciprocity syntactically, but the meaning of the sentence does not actually involve reciprocal action.
- v. Distributive reading: It is characterized as the subjects engage in a series of individual and distinct actions, rather than performing the same action towards each other simultaneously.

These core features of reciprocal constructions provide a framework for analyzing and understanding the syntactic and semantic complexities of reciprocal constructions across languages. In recent decades, researches on reciprocal constructions in linguistics have produced valuable outcomes through three distinctive approaches: syntactic, semantic and typological. The syntactic approach centers on the derivation of reciprocal structures, scrutinizing the grammatical rules and constraints governing the formation of such constructions. Roughly two competing hypothesis have been proposed to deal with the argumentation puzzle: the "base generation" hypothesis (Bruening, 2006), similar with the light-verb theory, and the "transformative generation" hypothesis (Siloni, 2012), with the assumption of a universal operation as reciprocalization. Theta Criterion can be survived regardless of either approach. Researches in formal semantics are currently centered on exploring the logic of reciprocity and the interpretation of reciprocal constructions (Fiengo & Lasnik, 1973; Higginbotham, 1980; Langendoen, 1978). Furthermore, the distinct relationship between symmetry and other relevant concepts are also being examined (Beck, 2001; Dalrymple, 1998). Besides, ongoing debates are centered on the interrelationship between reciprocity and plurality (Heim et al., 1991b). Additionally, the issue of polysemy between reciprocals and reflexives across languages have recently been under discussion (Maslova & Nedjalkov, 2013). Regardless of the approaches employed, the majority of available data primarily consists of English, thereby rendering researchers uninformed with respect to isolating languages such as Chinese. The typological approach prioritizes the detailed description of reciprocal markers and investigates how reciprocal meanings are conveyed in different languages. Starting with (König & Kokutani, 2006), mainly based on the syntactic properties, four commonest construction types,

quantificational, pronominal, affixal and “deverbal” approaches have been systematized. Nedjalkov makes a valuable complement, and further distinguishes the lexical and grammatical approaches, wherein multi-clausal and free markers are added (Nedjalkov, 2007b). However, Mandarin reciprocal marker *xiang* presents a challenge in its classification. Haspelmath in 2007 further notes that whereby some languages make use of explicit markers while others employ implicit means such as reflexive or plural forms. He respectively distinguishes two basic types of reciprocal constructions: explicit and implicit reciprocity. His approach is useful in identifying different patterns of reciprocity across languages. (Evans, 2008) provides a synthetic typological revealing of different types of reciprocal constructions across languages. Given the lexical factors on symmetric predicate, two more approaches, conjunct and adverbial, are added. Mandarin reciprocal marker *Xiangbu* can be placed in the new realm. Evans proposes the most specific and refining exhibition, as shown in Figure 1.



**Figure 1:** Evan’s summary of types of reciprocal construction

These three approaches explore the topic in depth and present different perspectives on the intricate nature of reciprocal constructions, thereby providing a rich foundation for further research. However, few studies provided a comprehensive representation of Mandarin reciprocal constructions. Given that Chinese is an isolating language, its unique characteristics are of great importance in uncovering how reciprocity is

encoded in grammatical systems. Further research in this area is therefore needed to shed light on the ways in which Chinese expresses reciprocity.

### 3. METHODS AND MATERIALS

Previous articles offer valuable insights into the typology of reciprocal markers in various languages. Inspired by them, a full view of mandarin reciprocal constructions and comparison between Mandarin and other languages in reciprocal strategies will be provided in this section.

#### 3.1 Reciprocal Strategies in Mandarin

Inspired by the work of (Evans, 2008), this section aims to provide a comprehensive overview of Mandarin reciprocal strategies, encompassing lexical, grammatical, and discourse-based approaches.

##### 3.1.1 Lexical Reciprocals

Lexical reciprocals are predicates that convey a mutual configuration inherently without any explicit grammatical indicators. Mandarin Chinese boasts a considerable repertoire of lexical reciprocals, which have been extensively documented in (Nedjalkov, 2007b). While the present section does not prioritize a lexical perspective, a concise survey along with representative examples shall be furnished. Reciprocal verbs: (Siloni, 2012) posits that the formation of reciprocal verbs can occur through both syntactic and lexical means, with viewing symmetry as a property in the latter. Some lexical items possess a reciprocal relation either as part of their lexical meaning or as a prototypical association. Considering the variability in defining reciprocal verbs, the present study adopts a valency-theoretical and internal sememe of symmetry in lexical to categorize Mandarin reciprocal verbs into three distinct types, namely PROTOTYPICALLY RECIPROCAL verbs (König & Kokutani, 2006), SEMI-SYMMETRIC verbs and ANTI-SYMMETRIC verbs. The defining property of 'Prototypically reciprocal verbs' is taken to be a bidirectional relationship of the type 'if then (bRa)' (Partee et al., 1993). They are characterized by a symmetrical structure that emphasizes the equal and bidirectional relationship between two arguments, where the entities involved in the same action have interchangeable roles. Typical examples are the verbs with lexical meanings denoting to marriage, such as *jiehun* (结婚 get married), *lihun* (离婚 divorce), and *dinghun* (订婚 engagement). In these

cases, the subject and object can be permuted without causing any change in the meaning of the sentence. Semi-symmetric verbs refer to those verbs whose reciprocal meanings between two arguments can be either equally bidirectional or mono-directional in the same event. In general, the entities involved in the action are not completely interchangeable like symmetric verbs. Reciprocal verbs describing quarrel and meeting situation are of this kind, such as *chaojia* (吵架quarrel), *dajia* (打架fight), *yudao* (遇到meet), *gaobie* (告别farewell). These verbs imply a reciprocal relationship or action, but the entities in the action may not have completely equal roles. For example:

- (1) *Xiaowang he Xiaoli dajia le.*  
 Xiaowang and Xiaoli fight-PAST.  
 Xiaowang hit Xiaoli.

In (1), Xiaowang and Xiaoli are involved in the action of fight, but they have different levels of involvement, Xiaowang may act as an initiator, while Xiaoli may be the patient. They are not interchangeable. Anti-symmetric verbs refers to those verbs whose reciprocal meanings between two arguments can be either equally bidirectional or subordinative, such as *dijiao* (缔交establish diplomatic relations), *shangtan* (商谈negotiate), *fenshou* (分手break up), *gongjian* (共建jointly construct). The exact relationship between arguments is highly depended on the context. As shown in (2) and (3):

- (2) *Dajia xianghu shangliang, bici tuoxie.*  
 We mutually negotiate each other compromise  
 We negotiate with each other and reach a compromise.'  
 (3) a. *Ta gen laoban xieshang, yaoqiu jiaxin.*  
 He and boss negotiate require salary raise  
 'he negotiate with his boss, requiring a salary raise.'  
 b. *\*Ta gen laoban xianghu xieshang, yaoqiu jiaxin.*  
 He and boss mutually negotiate require salary raise  
 'He negotiated with his boss, requiring a salary raise.'

In (2), the reciprocal verb *shangliang*(negotiate) can occur with *xianghu*, revealing that the two arguments in the action are interchangeable. While in (3) the subject he and boss are of subordinative relationship, the symmetric relationship are not interchangeable even in the same action. Reciprocal verbs have emerged as one of the prominent means of expressing reciprocal situations in Chinese. Based on the corpus from the Center for Chinese Linguistics (CCL), a total of 565 reciprocal verbs were

identified. Mandarin, with its abundant lexical resources in this domain, presents a valuable chance for advancing the study of semantic typology in this area.

**Reciprocal nouns and adjectives:** Reciprocal nouns and reciprocal adjectives are two additional types of lexical reciprocals. Similar to reciprocal verbs, reciprocity as a salient lexical feature is inherent in these words. However, unlike reciprocal verbs, the number of reciprocal nouns and adjectives is relatively few. Reciprocal nouns are always denoting to those nouns that are expressing social and spatial relationship between arguments. They are semantically dependent on mutual relationships between two participants, and the absence of either results in a semantic deficiency, thus the nouns have to fulfil specific dependence and symmetric requirements. Dependence necessitates double linking relations between two arguments, while symmetry entails a sharing relationship with opposite directionality. Examples of such reciprocal nouns include *tongxue* (同学 classmate), *qinqi* (亲戚relative), *zhanyou* (战友comrade), and *fuqi* (夫妻 couple). However, it should be noted that the semantic core of symmetry does not imply equal basis, as not all relations in reciprocal nouns are interchangeable, such as *fuzi* (父子fatherhood). Moreover, spatial relationships, such as *shangxia* (上下top and bottom) and *qianhou* (前后 front and back), can also be expressed through reciprocal nouns. However, they are subject to cognitive or pragmatic factors, which render them not entirely equivalent or interchangeable, acknowledging the degree of inequality in the relationship between arguments.

**Reciprocal adjectives** can be classified into two types. The first type pertains to argument comparison and includes adjectives such as *xiangsi* (相似 similar), *xiangtong* (相同 same), and *xiangcheng* (相称matchable). The second type pertains to personal relationships and includes adjectives such as *yaohao* (要好close to) and *miqie* (密切intimate). Selection of the anchor point for both types of adjectives reflects different reciprocal relationships, which are influenced by social, cultural, and cognitive factors.

**Idioms:** Idioms, or four-character compounds, function as cultural expressions that reflect the values, beliefs, and traditions of a particular society. Through their use of metaphor, idioms offer insights into the culture of a given community, providing a window into its history, social norms, and worldview. With its long history and rich cultural foundation, Chinese has developed a wide variety of idioms that embody the principles and practices of reciprocity and provides a salient means of coding reciprocity in Chinese language and culture. A detailed exploration of the relationship between culture and reciprocal

idioms can be found in Section 5.

### 3.1.2 Grammatical Reciprocals

Setting aside lexical strategies, there are also some morphosyntactic strategies adopted in Chinese to encode reciprocal meanings. In this section, they are classified into grammatical approaches, mainly including reciprocal markers, and verb-reduplication. Reciprocal markers: In light of the challenges mentioned in the introduction, it is noted that various languages have developed divergent strategies to tackle the puzzles. Specifically, in parallel with English, Chinese employs reciprocal markers through the use of adverbials such as *xianghu* and its variants, in addition to pronouns such as *bici* and *duifang*. *Xianghu*: In Mandarin Chinese, reciprocal adverbials such as *xianghu* are widely used as reciprocal markers. Unlike English, where reciprocal pronouns are the default strategy, Chinese tends to use reciprocal adverbials as its preference. In both cases, the markers function as adverbial phrases that follow the verb, indicating the mutual relationship between two or more participants.

(4) a. *Lisi he Zhangsan xianghu baoyuan.*

*Lisi and Zhangsan mutually complain*

*'Lisi and Zhangsan mutually complained.'*

b. *Lisi he Zhangsan xianghu yongbao le bici.*

*Lisi and Zhangsan mutually embrace PAST each other*

*'Lisi and Zhangsan mutually embraced each other.'*

Regarding example (7a), it is observed that the verb *baoyuan* (抱怨 complain) does not inherently convey a reciprocal sense. Nonetheless, when it combines with the reciprocal adverbial *xianghu*, it can indicate a reciprocal interpretation. In contrast, example (7b) features the prototypical verb *yongbao* (拥抱 embrace), whose reciprocal meaning is further reinforced by the addition of the reciprocal marker. It is worth noting that the reciprocal marker *xianghu* can also occur in a reverse order as *huxiang* without altering its meaning, although it results in a more formal style. *Xiang & hu*: *Xianghu* has been identified as consisting of two distinct morphemes, *xiang* and *hu*, which also exhibit preverbal occurrences. When used in isolation, *xiang* retains its reciprocal meaning, but it is most appropriately considered a bound morpheme that is analogous to the English prefix *inter-* in similar instances. Similar observations apply to *hu*. The formation of the new verb can take on either a two-character or four-character word structure. The former, denoted as (5), involves the affixation of a reciprocal marker to the monosyllabic verb and is frequently



encountered in the context of simple or discontinuous reciprocal constructions.

(5) a. Women zai loutijian xiangyule.

We-PL in staircase meet-PAST.

‘We met each other in the staircase.’

b. Xiaoli zhaole ge jiekou xian zou le, miande he Xiaowang xiangyu.

Xiaoli find-PAST an excuse earlier leave-PAST avoid with Xiaowang meet

‘Xiaoli left earlier with an excuse so as not to meet with Xiaowang.’

Xiang+V structure is intransitive in (6), which is distinguished from the Hu+V.

(6) a. Xiaowang zai loutijian xiangyule Xiaoli.

Xiaowang in staircase meet-PAST Xiaoli

‘Xiaowang met with Xiaoli in the staircase.’

b.\*Xiaoli zhaole ge jiekou xian zoule, miande xiangyu Xiaowang.

Xiaoli find-PAST an excuse earlier leave-PAST avoid meet Xiaowang.

‘Xiaoli left earlier with an excuse to avoid meeting with Xiaowang.’

With more syntactic restriction, hu+V is mostly as intransitive in four-character structures and transitive in the two-character structures, as shown in (7).

(7) a. Fuqi liang hu-jing hu-ai.

couple two REC-respect REC-love

‘The couple mutually love and respect each other.’

b. Liangguo hu-she dashiguan.

Two country REC-set up embassy

‘Two countries have mutually set up embassies.’

It is important to note that there are only a few instances in which the same verb can be modified by both *xiang* and *hu*, albeit with varying semantic connotations. Specifically, *xiangzhu*(help-the other) conveys the notion of offering help without the mutual meaning, whereas *huzhu*(help-each-other) denotes overt reciprocal meaning. Despite sharing grammatical similarities, *xiang* and *hu* may serve different semantic functions in the context of reciprocal constructions. The wide use of reciprocal adverbials *xianghu* and its variants make it the most common strategy in Chinese reciprocal construction. Reciprocal pronouns: *bici*: Arguably, the reciprocal pronoun *bici* can be viewed as an equivalent of its constituent morphemes *bi* and *ci*, which respectively connote that and this. The lexical evolution of *bici* entails the gradual integration of the meaning of *bi* with that of *ci*, resulting in a compound expression that denotes both sides. Syntactically, *bici* can be employed in a diverse range of sentence structures, functioning

as the subject, object, and attribute in a grammatical context, both pre-verbally and post-verbally, as shown in (8).

- (8) a. Bici peihe moqi.  
Each cooperate well  
'They cooperate well with each other.'  
b. Ta-men neng qingchu kanjian bici.  
They-PL. can clearly see each other  
'They can see each other clearly.'  
c. Bici de jingli buyiyang.  
Each POSS experience different  
'They each have their own experience.'

In the case of (8), as discussed by (Dalrymple, 1998) and (Langendoen, 1978), they distinguished strong and weak reciprocity according to the levels that each participant involved in the reciprocal event. Therefore *bici* in different syntactic positions contributes different strength of reciprocity. Located in the subject position, *bici* denotes to strong reciprocity, whereas denoting to weak reciprocity in the object position. *Duifang*: *Duifang* as the other important reciprocal pronoun, literally denoting to "opposite side", arguably regarding as the equivalence of English pronoun the other, or another. The syntactic distribution of this reciprocal pronoun is relatively flexible, post-verbally in most cases, while also preverbally in a few cases. *Duifang* can function as the subject, object and attribute.

- (9) a. Duifang ji bu daoqian, ye bu peichang.  
Other too not apologize also not compensate  
'The other party neither apologized nor compensated.'  
b. Tamen bangzhu duifang.  
They-PL. help other  
'They helped each other.'  
c. Duifang de daolai rang women feichang kaixin.  
Other POSS come make we-PL. very happy  
'The other party's coming makes us very happy.'

In conclusion, the intertwined usage of these markers offers an array of fascinating grammatical properties with respect to binding relationships, argument theory, and semantic exploration of scope ambiguities, rendering the study of reciprocal markers a captivating avenue for linguistic research. Verb reduplication: There is non-lexicalized way of marking reciprocals, with the use of (V-lai-V-qu)V-come-V-go. (Liu 1999) Basically, the pattern V-lai-V-qu 'V-come-V-go' derived or inferred the reciprocal meaning as 'to do something repeatedly.'

- (10) Tamen da-lai-da-qu.

They hit-come-hit-go

‘They hit each other.’

In (10), lai and qu combined with da, a monosyllabic verb may be used to mark ‘repeated motion in opposite direction.’ Similar patterns like Zou-lai-Zou-qu are quite productive in Chinese.

### 3.1.3 Clausal Reciprocals

In addition to monoclausal structure to encode reciprocity, it is common for languages to employ more than one clause to express mutual situations. Evans (2008)’s typology takes multiple clausal strategies into consideration, which expands the range of linguistic structures used to convey reciprocal relations between participants (Evans, 2008). In the context of Mandarin reciprocal constructions, the expression of reciprocity goes beyond specialized markers and includes several non-specialized linguistic structures, such as bi-clausal and discontinuous sentence pattern. Clause Coordination: This approach sheds light on the previously invisible syntactic bi-directionality among participants. This structure splits into its constituent sub-situations, each of which is asserted individually. Notably, the strong reciprocal strength is indicated by clause coordination and the possibility of returning to the basic reciprocal construction through the use of overt reciprocal markers (Evans, 2011), as shown in (11):

(11) a. Xiaoli kan-le Xiaozhang yi yan, Xiaozhang ye kan-le Xiaoli yi yan.

Xiaoli look-PAST Xiaozhang one eye Xiaozhang also look-PAST Xiaoli one eye

‘Xiaoli looked at Xiaozhang, and Xiaozhang also look at Xiaoli’

b. Xiaoli he Xiaozhang xianghu kan-le duifang yi yan.

Xiaoli and Xiaozhang mutually look-PAST each other one eye

‘Xiaoli and Xiaozhang mutually looked at each other.’

The case of (14a) comprises two structurally similar clauses, where the second clause mirrors the first, with subject and object positions reversed. The symmetric form of two single clauses generates reciprocity. Conversely in (14b), a straightforward monoclausal reciprocal sentence is formed using an overt marker duifang. While effective, this approach is often regarded as cumbersome, and is therefore not frequently employed when more than two participants are involved. Ring structure: The typical ring structure can be classified as a subtype of bi-clausal reciprocal construction. Unlike clausal coordination, the ring structure is an integral part of the entire sentence and, therefore, is always succinct and sophisticated. In Mandarin reciprocal constructions, two types of ring structures can be identified

based on their symmetric elements in the sentence, namely anaphora and 'who' ring structures. The example presented in (12) exemplifies the anaphora type.

- (12) a. Ta-men liang-ge-ren xiao-zhe ni kan wo, wo kan ni.  
They-PL. two-CL.-people laugh-PRE. you look me I look you  
'They are laughingly looking at each other.'  
b. Ta-men liang-ge-ren xiao-zhe kan-zhe bici.  
They-PL. two-CL.-people laugh-PRE. Look-PRE. each other  
'They laughingly looked at each other.'

Typically as bi-clausal, ring structure in (15a) is also characterized as composing of two structurally symmetric sentences *ni kan wo* and *wo kan ni* (you look at me, I look at you), wherein *wo* and *ni* refer to the participants in the mutual event. With overt marker, (15a) can be integrated into a monoclausal as (15b). Similar with clause coordination, ring structure also represents reciprocity by the form of mirroring pattern.

The other type of ring structure is related with an indefinite Wh-pronoun *shei* as (13).

- Two-CL. man just as stand-PRE. who also not with who talk  
'They just stood and no one talked to the other.'

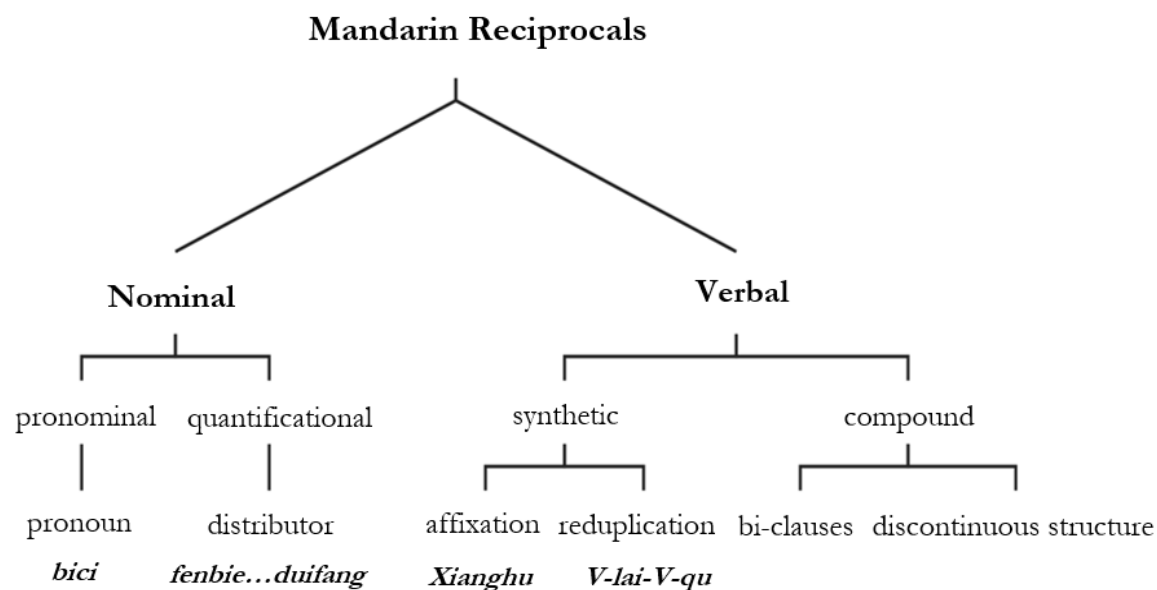
Ring structure of this type in Chinese is rare to see for its presence only in negative sentence and always occur with universal quantifier *Dou*, where Wh-pronoun as an indefinite variable refers non-specifically. The structure normally reveals strong reciprocal relationships among participants.

Discontinuous structures: The notion of discontinuous reciprocal construction mostly refers to the construction in which a reciprocal expression opens two separate slots for reciprocal participants (Dimitriadis, 2004). Similar reciprocal patterns are also common to be found in mandarin reciprocal constructions, as shown in (14):

- (14) a. Xiaowang yongbaole xiaoli.  
Xiaowang embrace-PAST Xiaoli  
'Xiaowang embraced with Xiaoli.'  
b. Xiaowang he Xiaoli yongbao-le bici.  
Xiaowang and Xiaoli embrace-PAST each other  
'Xiaowang and Xiaoli embraced with each other.'

Discontinuous reciprocal constructions exhibit a close association with reciprocal verbs. They can exhibit distinct valency properties when interacting with reciprocal adverbials *xianghu*, thereby facilitating the formation of discontinuous reciprocal constructions. A detailed analysis of this aspect shall not be reiterated herein. In sum, roughly adopting the typology of (König & Kokutani, 2006), mandarin reciprocal strategies are

summarized in diagram 2.



**Figure 2:** Mandarin reciprocal strategies

Figure 2 depicts the diverse methods by which reciprocal constructions may be derived in Mandarin Chinese. One such means is through the use of lexical reciprocals, which inherently convey a mutual situation within their meanings. As previously discussed in section 3.1.2, n grammatical strategies can also be utilized to form reciprocal constructions such as employing the reciprocal marker *xianghu* on the verb, employing anaphors like *bici*, or through verb reduplication. In addition, Mandarin Chinese offers a clausal type of reciprocals, including bi-clause and discontinuous reciprocal constructions. Notably, it is intriguing to observe that reciprocity is manifested at nearly all levels of Mandarin Chinese grammar, indicating a profound penetration of this concept within the language system.

### 3.2 Reciprocal Strategies in other Languages

The specific ways that reciprocity is encoded can vary widely from language to language. The central objective of this section is to offer a general description of how reciprocity is encoded and presented in other languages on various linguistic levels. The comparison of reciprocal strategies will be delimited to the morphosyntactic methods, thus excluding the non-grammatical methods such as lexical and clausal reciprocals. One of the most common ways to encode reciprocity is through the use of reciprocal pronouns. Examples of reciprocal pronouns are included as follows:

- (15) Ci ha                      presentati                      l'un all'altro.                      Italian  
 Us have-PRE. 3s   introduce-PAS.-MUS-PL.   to each other

‘He introduced us to each other.’

(16) Sie l ieben einander.

German

They love-PRE. each other

‘They love each other.’

(17) Les enfants se aiment.

French

The children each other love-PRE-3P

‘The children love each other.’

(18) John to Mary ga otagai-o ai-site iru.

Japanese

John and Mary Nom each other-ACC love do be that

‘John and Mary love each other.’

(19) Et-I kul’tur-y vzaimo-obogaš’caj-ut drug drug-a. Russian

this-NOM.PL culture-NOM.PL RECP-enrich-PRS.3PL each other-ACC ‘These cultures mutually enrich each other.’ In some languages, reflexive pronouns are also functioned as the other way to encode reciprocity, and similar cases can be found in French and German (König & Gast, 2008).

(20) Luc se parle.

French

Luc themselves talk-PRES-3s

‘Luc talks to himself.’

(21) Die Teilnehmer kennen sich sehr gut.

German

The Participants know-PAS themselves very well

‘Participants know each other/themselves very well.

Some languages have adverbial expressions that can be used to indicate reciprocity, as shown in (22) and (23).

(22) Les participants sont salués mutuellement.

French

The participants greet-PAS.MUS.PL. mutually

‘The participants met mutually.’

(23) Sie halfen sich gegenseitig.

German

They-3PL. help-PAS. each other mutually

‘They helped each other.’

In addition to pronouns and adverbials, some languages also have dedicated reciprocal affixes that can be used to indicate reciprocity. For example, “-sja” in Russian, “-aw” in Japanese.

(24) V metro vs-e tolka-j-ut-sja.

Russian

in metro all-PL.NOM push-PRS.3PL-RECP

‘Everyone pushes each other in the metro.’

(25) John to Mary ga ai-si-aw te iru

Japanese

John and Mary Nom love-RECP be that

‘John and Mary love each other.’

Many morphosyntactic strategies are utilized to express reciprocity in

languages, and specific languages may have access to more than one strategy. Besides, reciprocal situations can be expressed in various non-grammaticalized ways, including repetition of noun phrases, use of reciprocal pronouns, spell-out constructions, symmetric and prototypically reciprocal predicates (Haas, 2010). The crosslinguistic data are concluded in table 2.

Table 2: Reciprocal strategies across languages

Language	Affixation	Reciprocal Pronoun	Reflexivepronoun	Adverbial	Reduplication
French	-se	l'un l'autre	-se	Mutuellement, réciproquement	
Italian		l'un all'altro.	-si		
Russian	-sja	drug druga			
English		each other		muturally	
		one another			
Japanese	-aw	otagai			
German		einander	-sich	gegenseitig	
Chinese	huxiang, -dui	bici, duifang	gezi	fen bie	V-lai V-qu

When considering diagram 2 in conjunction with the aforementioned observation, it becomes apparent that the reciprocal strategies employed by Mandarin surpass those of other languages in terms of complexity and diversity. Therefore, it raises the question as what are the fundamental factors underlying Mandarin's richness in reciprocal strategies?

### 3.3 Discussion

As previously discussed, the concept of reciprocity in Mandarin Chinese is encoded through various grammatical methods, resulting in a vast array of reciprocal strategies. However, Mandarin Chinese is a monosyllabic and isolating language, which utilizes a word structure that is typically composed of single syllables, which are not inflected for tense, aspect, or agreement (Li & Thompson, 2009). Instead, it employs flexible word formation and rich particles to convey grammatical information. As a language completely lack of inflectional morphology, Mandarin Chinese is exceptionally abundant in reciprocal representation. We proposed that these characteristics collectively illustrate Mandarin Chinese's predominant

nature “as a highly analytic language” as argued by(Huang, 2014). Turning to the reciprocal constructions at hand, we have now seen that Chinese reciprocals exhibit a high degree of analyticity in several ways. Mandarin reciprocals are analytic at lexical level. Compared with English, setting aside the lexical approach, reciprocal pronouns are the default strategy to encode reciprocity. Such expressions such as each other or one another exist as single constituents, along with a discontinuous option(Huang, 2014).

(26) a. They each criticized the other(s).

b. They criticized each other.

c. Each of them criticized the other(s).

But in Chinese, only the analytic forms are acceptable. Chinese employs a discontinuous strategy with pronoun *duifang* interacting with other elements, such as *gezi*, *fenbie*, *dou*.

(27) a. Tamen zhize-le bici.

They-PL. criticize-PAST. each other

‘They criticized each other.’

b. Tamen gezi zhizhe-le duifang.

They-PL. each criticize-PAST other

‘Each of them criticized the others.’

c. Tamen fenbie zhize-le duifang.

They-PL. distributively criticize-PAST other

‘They separately criticized each other.’

d. Tamen dou zhize duifang.

They-PL. all criticize each other

‘They all criticized each other.’

The comparison between (26) and (27) is one evidence reflecting the parametric difference between English and Chinese, say, synthetic and analytic. Due to the numerous semantic analyses of English reciprocal pronoun as exemplified in (26), a comprehensive examination will not be provided here. The central objective of the comparison is as two folds: one as evidence to support the parametric difference, the other one to highlight the values of mandarin reciprocal data. By the discontinuous structure relating with *duifang* and other elements, mandarin reciprocals may provide insights into the previous Quantifier-raising approach in the analysis of each other(Heim et al., 1991a). I will leave this part for the future. With the exception of the aforementioned cases, Mandarin reciprocal constructions are analytic in clausal structure, enabling the language to address the syntactic and semantic mismatches mentioned in section 2. The division of simple reciprocal sentences into multiple subtypes allows for the successful mapping of various reciprocal situations



onto grammatical constructions. Upon(Huang, 2014), they “characterize modern Chinese as a language of high analytic at multiple levels---with respect to lexical structure, clausal functional structure, and argument structure.” Notably, reciprocal construction serves as the optimal representation of this linguistic characterization. The high level of analyticity inherent in Chinese results in the abundance of reciprocal strategies available for language representation.

#### 4. PHILOSOPHICAL FACTORS ON MANDARIN RECIPROCAL CONSTRUCTION

Chinese is not merely a linguistic system but a reservoir of deep-rooted cultural connotations, philosophical tenets, and aesthetic nuances. The high-analyticity intrinsic to the language significantly influences its linguistic representations, particularly its reciprocal strategies, which are also shaped by various cultural factors. Therefore, before delving into the reciprocity in Chinese culture, it is imperative to address two fundamental inquiries: Firstly, how do language and culture intersect with each other? Secondly, what is the correlation between the concept of reciprocity in linguistics and other academic disciplines such as anthropology? Note clearly that the link between language and culture is a natural bond. Language is a communicative skill whose space, in the social environment, is a semiotic one(Saussure, 1960). The relationship between a signifier and a signified in language is only necessary when a culture recognizes a certain value in them, making their connection meaningful from arbitrary to reality, thus making the sign a reflection of reality. The way language builds between mind and reality, which deeply rooted from culture, is a typical metaphorical process(Lakoff & Johnson, 1980). Hence, there exists a natural and indissoluble bond between language and culture, much like the bond between thought and language. It is crucial to establish a clear understanding of how the various interpretations of reciprocity in different academic fields are interconnected. Despite being studied using different methodologies, these interpretations all share the central concept of exchange as the kernel of reciprocity. Marcel Mauss, an anthropologist credited with developing the modern concept of reciprocity, insisted that reciprocity is first and foremost a question of symbolic exchange(Mauss, 1925). As previously discussed, language is inherently a semiotic device. Although there are still theoretical debates about related concepts like gift exchange in sociology or other disciplines, it is certain that reciprocity in

language is linked to the principle of reciprocity in symbolic exchange within society. Returning to the topic of reciprocal constructions, this section aims to investigate the cultural factors that influence mandarin reciprocal strategies. The analysis reveals that reciprocity is a fundamental and deeply ingrained aspect of Chinese culture.

#### 4.1 Philosophical Thoughts

As for ethical principles, philosophies in Confucius are typical manifestations. When Confucius was asked whether any single word could summarize all other ethical principles, he suggested shu (恕, reciprocity). In Chinese culture, the concept of Shu is closely tied to the Golden Rule: "Do not do to others what you would not want done to yourself." However, the idea of reciprocity in Chinese culture goes beyond simply treating others as you would like to be treated. It is a concept that can be translated as reciprocity, forgiveness, or empathy. It also involves being forgiving and understanding towards others, even when they have wronged you. Confucius refers to it as the guiding doctrine throughout life. This principle encourages individuals to treat others with kindness and respect, and to act with empathy and compassion. It is an important cultural value in Confucianism, which emphasizes the importance of maintaining positive relationships with others and the idea of social harmony. It also makes the concept of reciprocity as the key aspects of Chinese culture.

#### 4.2 Bao Culture

Deeply influenced by Confucianism, Chinese people intend to believe in reciprocal altruism (Trivers, 1971). It is a form of altruistic behavior where an individual provides a benefit to another individual with the expectation that the favor will be returned in the future. Reciprocal altruism as an important aspect of social behavior can help to establish and maintain social bonds. Chinese culture has a rich tradition of the concept of Bao (报, give-take), which is rooted in the principle of reciprocal altruism. Numerous idioms are associated with Bao, and the Chinese doctrine emphasizes the virtue of showing gratitude in return for others' help (知恩图报) and avoiding the act of returning kindness with ingratitude (恩将仇报). Nevertheless, the Chinese cultural context also acknowledges that enormous kindness may sometimes be perceived as great hatred (大恩如大仇) since the beneficiary may not be able to repay the giver's

benevolence. In ancient martial literature, kindness and hatred are recurring motifs that often feature in the portrayal of heroic characters. These characters' doctrines promote a benevolent approach to dealing with kindness and hatred, where even in the face of an enemy, one may resolve the animosity with a smile (一笑泯恩仇). The concept of Bao in Chinese folklore is deeply intertwined with the theme of requiting a kindness (报恩). The Chinese language contains numerous words related to en (kindness), such as 父母之恩 (kindness of parents who gave birth to their children), 恩师 (teachers or mentors), and 恩人 (people who have helped you). Chinese culture places a strong emphasis on the importance of repaying kindness multiple times over. This value is reflected in a variety of idiomatic expressions, such as 滴水之恩当涌泉相报 (repay a drop of water with a gushing spring), 大恩大德 (great kindness), and 恩重如山 (great kindness is as heavy as a mountain). These values are not limited to human relationships alone but also extend to the animal kingdom, as evidenced by the stories of the young lamb that knelt down to suckle milk from its mother (羊跪乳) and the crow that knows to feed back its parents when they are old (鸦反哺). Such stories have become an integral part of Chinese cultural traditions, and they are often used to instill these values in young children.

#### 4.3 Face Culture

In personal communication, reciprocity is heavily connected to and intertwined with the concepts of mianzi(面子face) and guanxi(关系relationship), both of which are also critical in any understanding of Chinese. Mianzi is a complex cultural concept that is hard to be equivalently translated into English. However, it can refer to “face”, “dignity”, “honor”, which is a deeply ingrained value in Chinese culture. It often patterns with the verb “give”, “lose” and “saving”, which all denote to the reciprocal behaviors in social interactions, relationship, and business dealings. Guanxi is a concept in Chinese culture that emphasized the importance of building and maintaining relationship. Reciprocity almost acts like a glue in a relationship as it bonds people together through an unspoken bartering of favors. When you have guanxi with someone, you are expected to give and receive favors. People do each other favors, ask for favors, give gifts and do all sorts of other things in order to pay or repay ‘debts’. In this respect, Chinese people routinely relate to each other collectively.

#### 4.4 We-orientation Culture

Contrary to collectivism, people can communicate with each other individually, which results in the theoretical dichotomy of cultural identity. According to Larina, two major universals, namely the I-orientation cultures, drawing from theoretical framework of Individualism, and the we-orientation cultures, stemming from the Collectivist theoretical framework, could be well distinguished(Larina et al., 2017). Based on the dichotomy, previous discussion strongly confirms that Chinese culture is we-identity, different from that in English, which focuses more on individualism, namely I-orientation cultures. Looking into the relationship between language and culture, Jenkins argued that humans resort to a repertoire of identification, which is dependent upon socio-cultural conditions and expressed through a range of semiotic, such as linguistic ones(Jenkins, 2014).

It may be possible to prove that the relationship between language and culture determine the specific expressions of linguistic forms. Back to reciprocal construction, I-orientation and we-orientation cultures communicate their respective feature through a variety of manifestation at reciprocal strategies. Reciprocity can be viewed as an evidence that makes the cultural factors salient in the representations of language.

### 5. CONCLUSION

The present study provides a landscape of mandarin reciprocal constructions, from a typological point of view. It is revealed that Chinese is the language that adopts the most kinds of methods to code reciprocity. Different from English, which is relatively simple in this respect, reciprocity in Chinese can be expressed by almost all the grammatical methods. Under these seemingly various linguistic representations, similarities are also emerged. While given language parameter, they are coded by different grammatical and lexical method. Much evidence in reciprocal constructions confirms the idea of Baker, language variation can be both systematic and individual. To explain the richness in Mandarin reciprocal strategies, we argue that two factors are working: high-analyticity as a nature in language, reciprocity is expressed variously in linguistic system. Since language is a multi-layered semiotic device, reciprocal culture is the other determining factor. This study provides consolidate evidence that language internal and external factors are interacting with each other to contribute the richness in mandarin reciprocal strategies.

## References

- Beck, S. (2001). Reciprocals are Definites. *Natural Language Semantics*, 9(1), 69-138.
- Bruening, B. (2006). The Morphosyntax and Semantics of Verbal Reciprocals. In: Manuscript: University of Delaware.
- Dalrymple, M., M. Kazanawa, Y. Kim, S. Mchombo, S. Peters. (1998). Reciprocal expressions and the concept of reciprocity. *Linguistics and Philosophy*, 21(2), 159-210.
- Dimitriadis, A. (2004). *Discontinuous reciprocals* Conference on Cross-linguistic Data and Theories of Meaning,
- Evans, N. (2008). Reciprocal constructions: Towards a structural typology. In E. König & V. Gast (eds.) (Eds.), *Reciprocity and Reflexivity: Theoretical and Typological Explorations*. (pp. 33-103). de Gruyter.
- Evans, N. (2011). Reciprocals and Semantic Typology. In E. Nicholas, A. Gaby, S. C. Levinson, & A. Majid (Eds.), *Typological Studies in Language* (pp. 1-28). John Benjamins Publishing Company.
- Fiengo, R., & Lasnik, H. (1973). The Logical Structure of Reciprocal Sentences in English. *Foundations of Language*, 9(4), 447-468.
- Haas, F. (2010). *Reciprocity in English: Historical Development and Synchronic Structure*. Routledge.
- Haspelmath, M. (2007). Further remarks on reciprocal constructions. In V. P. e. Nedjalkov (Ed.), *Reciprocal Constructions*. John Benjamins Publishing Company.
- Heim, I., Lasnik, H., & May, R. (1991a). On "Reciprocal Scope". *Linguistic Inquiry*, 22(1), 173-192.
- Heim, I., Lasnik, H., & May, R. (1991b). Reciprocity and plurality. *Linguistic Inquiry*, 22(1), 63-103.
- Higginbotham, J. (1980). Reciprocal Interpretation. *Journal of Linguistic Research*, 1(2), 97-117.
- Huang, C.-T. J. (2014). On Syntactic Analyticity and Parametric Theory. In A. Li, A. Simpson, & W.-T. D. Tsai (Eds.), *Chinese Syntax in a Cross-Linguistic Perspective* (pp. 1-48). Oxford University Press.  
<https://doi.org/10.1093/acprof:oso/9780199945658.003.0001>
- Jenkins, R. (2014). *Social Identity*. Routledge.
- Kobayashi, M., & Filipe, H. (2021). Two Ways of Building Reciprocity: A Study of Mandarin Reciprocals. Proceedings of the 38th West Coast Conference on Formal Linguistics, Somerville, MA.
- König, E., & Gast, V. (2008). Reciprocity and Reflexivity-description, typology and theory. In E. König & V. Gast (Eds.), *Reciprocity and Reflexivity: Theoretical and Typological Explorations*. de Gruyter.
- König, E., & Kokutani, S. (2006). Towards a typology of reciprocal constructions: focus on German and Japanese. *Linguistics*, 44(2), 271-302.
- Lakoff, G., & Johnson, M. (1980). The metaphorical structure of the human conceptual system. *Cognitive Science*, 4(2), 195-208.
- Langendoen, D. T. (1978). The logic of reciprocity. *Linguistic Inquiry*, 9(2), 177-197.
- Larina, T. V., Ozyumenko, V. I., & Kurteš, S. (2017). I-identity vs we-identity in language and discourse: Anglo-Slavonic perspectives. *Lodz Papers in Pragmatics*, 13(1), 109-128.

- Li, C. N., & Thompson, S. A. (2009). Chinese. In B. Comrie (Ed.), *The World's Major Languages* (pp. 703-723). Routledge.  
<https://books.google.com/books?id=PEAOAQAAMAAJ>
- Liu, M. (2000). Reciprocal marking with deictic verbs “come” and “go” in Mandarin. In Z. T. C. e. Frajzyngier (Ed.), *Reciprocals: Forms and Functions*. John Benjamins Publishing Company.
- Liu, T. Z. (2003). The resolution of ambiguity in the use of "gèzì" and "xiānghù" as reciprocal markers in Chinese. *Linguistic Research*, 3, 49-54.
- Lv, S. X. (1988). On several issues related to Chinese reciprocal sentences. *Linguistic Research*, 3, 47-54.
- Majid, A. E., Nicholas; Gaby, Alice; Levinson, Stephen C. (2011). The Grammar of Exchange: A Comparative Study of Reciprocal Constructions Across Languages. *Frontiers in Psychology*, 2(2), 1-15.
- Maslova, E., & Nedjalkov, V. P. (2013). Reciprocal Constructions. In M. S. Dryer & M. Haspelmath (Eds.), *The World Atlas of Language Structures Online* (Vol. 2020).
- Mauss, M. (1925). *The Gift: Forms and Functions of Exchange in Archaic Societies*. Routledge.
- Nedjalkov, V. (2007a). *Reciprocal Constructions*. John Benjamins Publishing Company.
- Nedjalkov, V. (2007b). *Typology of Reciprocal Constructions*. Benjamins.
- Partee, B. H., Alice ter Meulen, & Wall, R. E. (1993). *Mathematical Methods in Linguistics*. Kluwer.
- Ping, J. K. (1996). Distributivity in chinese reciprocal constructions. *Working Papers of the Linguistics Circle*, 13, 59-69.
- Saussure, D. F. (1960). *Course in general linguistics*. Bloomsbury Publishing Company.
- Siloni, T. (2012). Reciprocal verbs and symmetry. *Natural Language & Linguistic Theory*, 30(1), 261-320.
- Tao, H. Y. (1987). A comparison of the use of "hùxiāng," "bǐcǐ," and "xiānghù" in Chinese. *Chinese Language Learning*, 4(3), 45-49.
- Trivers, R. (1971). The Evolution of Reciprocal Altruism. *Quarterly Review of Biology*, 46, 35-57.